radioactive beam of 28Mg ($1.5{\cdot}10^6$pps) was scattered off a radioactive tritium target to populate states in 30Mg after two-neutron transfer. For the first time, the full HIE-ISOLDE beam energy of 9.5 MeV/u was used for a transfer experiment at MINIBALL. Thanks to the higher beam energies, the data allow insight into the full complexity of three-state mixing in the IOI, for the first time. We discuss the implications of the preliminary data analysis to our understanding of nuclear shell evolution.

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Transfer and breakup reactions involving ^{7}Be at ISOLDE

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The transfer and breakup nuclear reactions involving loosely bound light stable and unstable nuclei have interesting consequences in nuclear astrophysics. In particular, reactions with ^{7}Be are linked to the cosmological lithium problem. Detailed studies of ^{7}Be destruction channels are required before one can invoke solutions to the lithium problem beyond nuclear physics, particularly in the context of new resonances as well as conjectured light neutral particles. In addition, study of α-transfer and breakup reactions involving ^{7}Be require data on different targets with wide angular coverage. An experiment with 5 MeV/A ^{7}Be on CH_2, CD_2 and ^{208}Pb targets has been carried out at HIE-ISOLDE (IS 554). We utilized the scattering chamber installed in the third beamline of the HIE-ISOLDE facility with sets of DSSD in a pentagon geometry. Preliminary results from the experiment would be presented.

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Disentangling the 186Hg puzzle

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